

AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions, and listings, of claims:

- 1 1. (Previously Presented) A method of accounting for services provided over a  
2 packet-based network, comprising:  
3 determining a type of service used over the network;  
4 monitoring usage of the service; and  
5 collecting accounting information based on the type of service and usage of the service,  
6 wherein collecting the accounting information includes compiling the accounting information  
7 into an accounting unit,  
8 wherein the accounting unit has a first entry to indicate a quality of service provided over  
9 the packet-based network, and a second entry to indicate mobility management.
- 1 2. (Previously Presented) The method of claim 1, wherein the determining, monitoring, and  
2 collecting are performed in a first entity, the method further comprising transmitting, from the  
3 first entity, the accounting unit to at least another entity.
- 1 3. (Original) The method of claim 2, further comprising assigning an identifier with the  
2 collected accounting information that is common between the first entity and the at least one  
3 other entity.
- 1 4. (Cancelled)
- 1 5. (Previously Presented) The method of claim 1, further comprising using an accounting  
2 unit having a common format for convenient exchange between entities.
- 1 6. (Previously Presented) The method of claim 1, further comprising using an accounting  
2 unit including a traffic matrix segment.

1 7. (Previously Presented) The method of claim 1, wherein determining the type of service  
2 includes determining one of a plurality of service types, wherein collecting the accounting  
3 information comprises collecting an additional entry assigned a value to indicate a type of  
4 service.

1 8. (Original) The method of claim 7, wherein determining one of the plurality of service  
2 types include determining one of real-time communications and at least another type of service.

1 9. – 15. (Cancelled)

1 16. (Previously Presented) A method of accounting for services provided over a packet-  
2 based network, comprising:  
3 communicating a unit of accounting information carrying information regarding usage of  
4 the packet-based network by a terminal, the unit of accounting information having a  
5 predetermined format capable of being exchanged between a plurality of entities; and  
6 assigning values to entries in the unit of accounting information based on usage, the unit  
7 including a first entry indicating a quality of service provided over the packet-based network and  
8 a second entry containing a network access identifier of the terminal to uniquely identify the  
9 terminal.

1 17. (Previously Presented) The method of claim 16, wherein assigning values to entries  
2 further includes assigning a value to an additional entry indicating a type of service.

1 18. (Original) The method of claim 17, wherein assigning values to entries further includes  
2 assigning values to additional entries including entries indicating usage of a radio interface,  
3 indicating usage of a visited network, indicating usage of mobility management, and indicating  
4 an amount of data transferred.

19. (Original) The method of claim 18, wherein assigning values to entries further includes assigning a value to an additional entry indicating erroneous termination of communications.

20. (Currently Amended) ~~The method of claim 19,~~ A method of accounting for services provided over a packet-based network, comprising:

communicating a unit of accounting information carrying information regarding usage of the packet-based network by a terminal, the unit of accounting information having a predetermined format capable of being exchanged between a plurality of entities; and assigning values to entries in the unit of accounting information based on usage, the unit including a first entry indicating a quality of service provided over the packet-based network and a second entry containing a network access identifier of the terminal to uniquely identify the terminal,

wherein assigning values to entries further includes assigning a value to an additional entry indicating a type of service,

wherein assigning values to entries further includes assigning values to additional entries including entries indicating usage of a radio interface, indicating usage of a visited network, indicating usage of mobility management, and indicating an amount of data transferred.,

wherein assigning values to entries further includes assigning a value to an additional entry indicating erroneous termination of communications,

wherein assigning values to entries further includes assigning a value to an additional entry indicating an amount of discarded data.

21. (Previously Presented) A system capable of being coupled to a packet-based network, comprising:

a controller to collect usage information based on a service used by a node on the packet-based network; and

a storage device containing an accounting unit in which the usage information is collected, the accounting unit including a plurality of entries to identify usage elements from

7    which accounting may be derived, the entries comprising a first entry to indicate a quality of  
8    service used by the node and a second entry to indicate usage of mobility management.

1    22.    (Original) The system of claim 21, wherein the entries of the accounting unit include an  
2    entry identifying a type of service used.

1    23.    (Cancelled)

1    24.    (Previously Presented) The system of claim 21, wherein the entries of the accounting  
2    unit further comprise entries indicating elements used by a mobile node, including mobility  
3    management, usage of a radio interface, and usage of a visited network.

1    25.    (Original) The system of claim 21, wherein the accounting unit includes a traffic matrix  
2    segment.

1    26.    (Previously Presented) The system of claim 21, wherein the accounting unit is according  
2    to a predetermined format, the controller to further communicate the accounting unit to another  
3    entity.

1    27.    (Previously Presented) The system of claim 21, further comprising:  
2            an accounting processor adapted to receive accounting units from at least one other  
3    entity.

1    28.    (Original) The system of claim 27, wherein the accounting processor is adapted to  
2    generate billing to a subscriber based on one or more of the accounting units.

1 29. (Previously Presented) An article including one or more machine-readable storage media  
2 containing instructions for accounting for services used on a packet-based data network, the  
3 instructions when executed causing a system to:

4 determine usage elements associated with each service, the usage elements including a  
5 service type, amount of data communicated, and mobility management; and  
6 collect accounting units each including entries identifying the usage elements.

1 30. (Previously Presented) The article of claim 29, wherein the one or more storage media  
2 contain instructions that when executed cause the system to further communicate the accounting  
3 units to another entity.

1 31. (Previously Presented) A computer data signal embodied in a carrier wave comprising  
2 one or more code segments containing instructions for accounting for services used on a packet-  
3 based data network, the instructions when executed causing a system to:

4 receive accounting units from at least another entity, each accounting unit containing a  
5 first entry identifying a quality of service, a second entry identifying a terminal the accounting  
6 unit is associated with, and a third entry indicating usage of mobility management;

7 determine, from each accounting unit, usage of a service on the packet-based network;  
8 and

9 charge at least a subscriber for the usage of the service.

1 32. (Previously Presented) A storage device for storing data for access by one or more  
2 software routines being executed on a system, comprising:

3 a data structure stored in the storage device and including a plurality of entries, the entries  
4 including a first field indicating a quality of service provided over a packet-based network, a  
5 second field indicating if the service is chargeable, and a third field including an identifier  
6 identifying a node using the service.

1 33. (Original) The storage device of claim 32, wherein the data structure further includes a  
2 field indicating if mobility management is provided for the node, a field indicating usage of a  
3 radio interface by the node, and a field indicating usage of a visited network by the node.

1 34. (Previously Presented) The method of claim 17, wherein assigning a value to the  
2 additional entry comprises assigning one of plural values corresponding to plural types of  
3 service.

1 35. (Previously Presented) The method of claim 34, wherein the plural types of service  
2 comprise real-time communications and at least another type of service.

1 36. (Previously Presented) The method of claim 16, wherein communicating the unit of  
2 accounting information comprises communicating a traffic matrix segment having a header and  
3 plural rows, each row containing accounting information associated with a session having a  
4 given time duration.

1 37. (Previously Presented) The method of claim 16, wherein assigning values to entries  
2 further includes assigning values to additional entries containing source and destination network  
3 addresses.

1 38. (Previously Presented) The method of claim 16, further comprising monitoring usage of  
2 services on the packet-based network with an accounting meter, wherein assigning values to the  
3 entries is performed by the accounting meter.

1 39. (Previously Presented) The article of claim 29, wherein the usage elements further  
2 comprise quality of service, usage of air interface, and a network access identifier.